

1/10

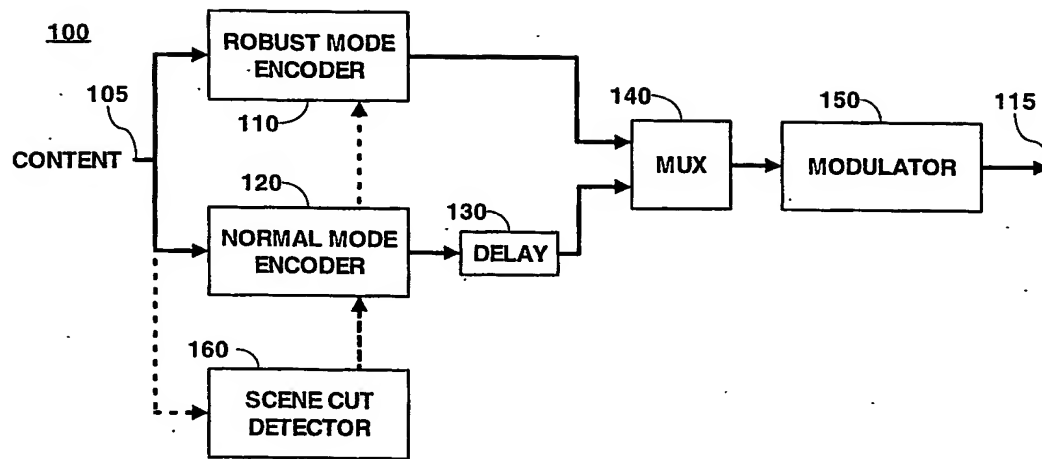


Fig. 1 Transmitter

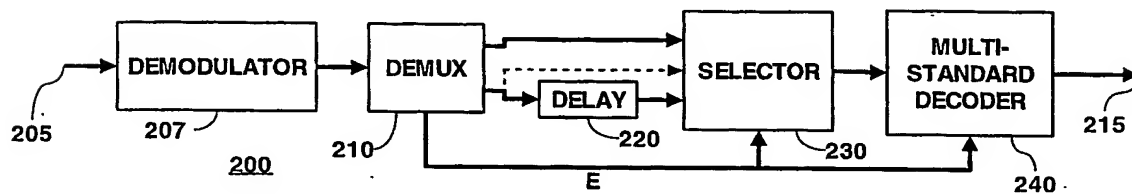


Fig. 2 Receiver

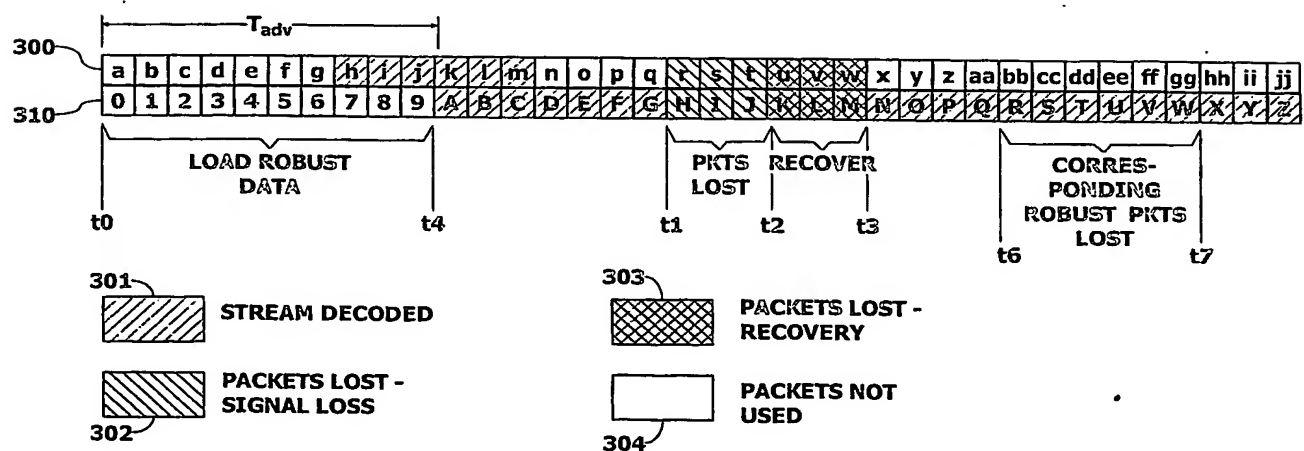


Fig. 3 Packet Streams

2/10

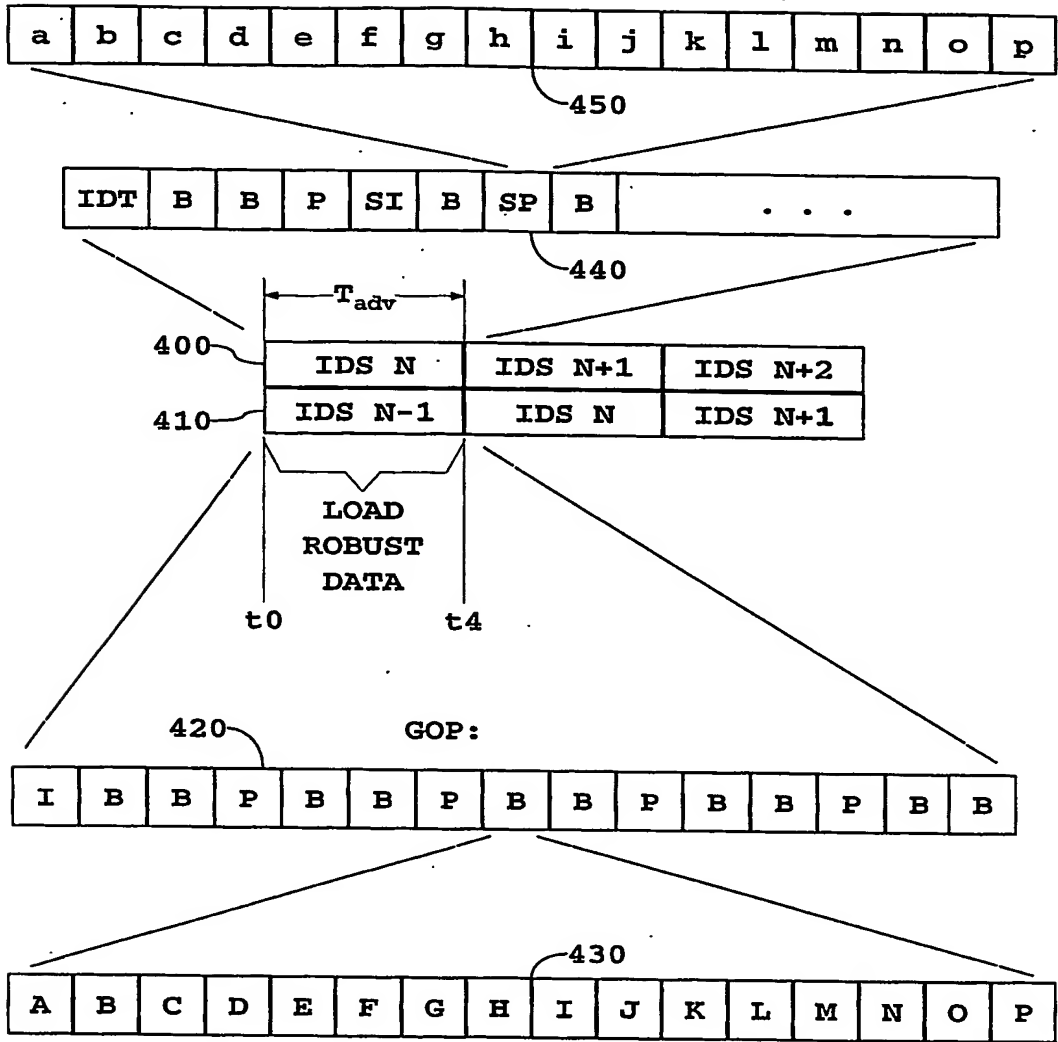


Fig. 4 GOP Streams

3/10

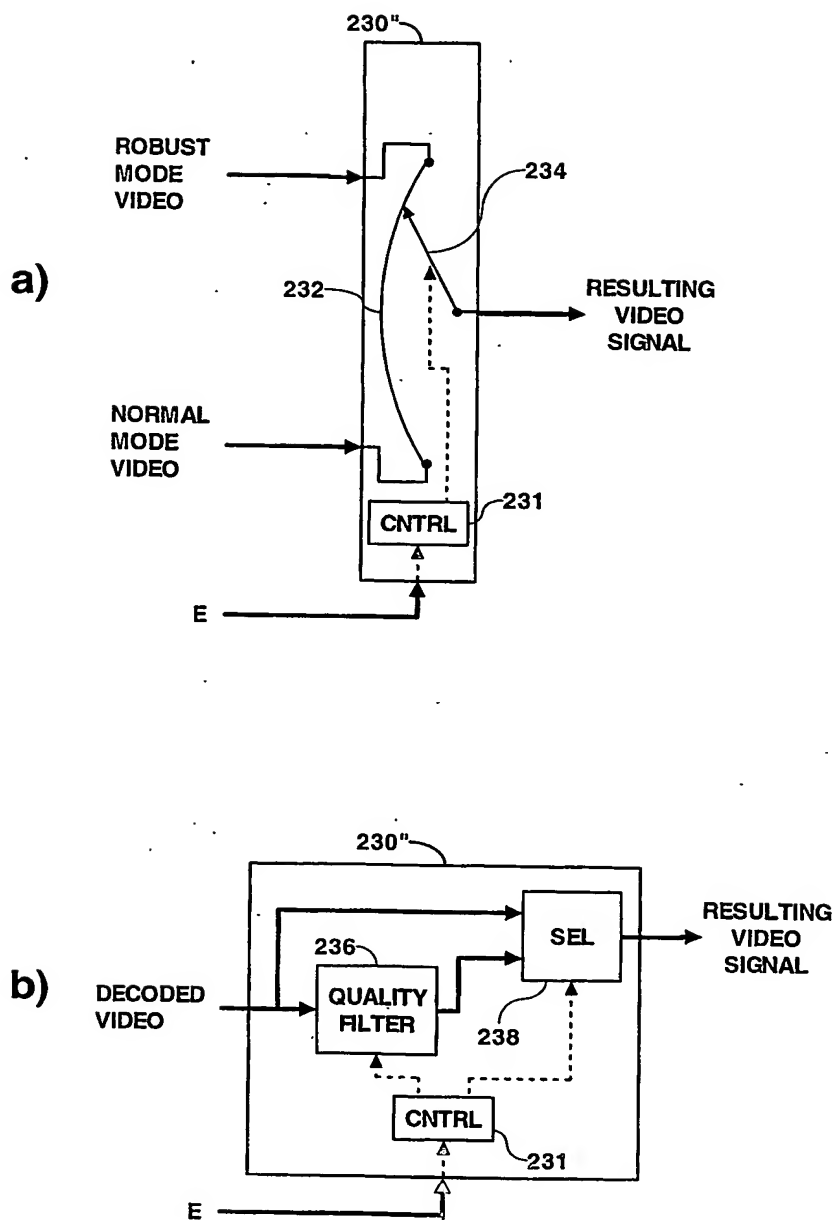
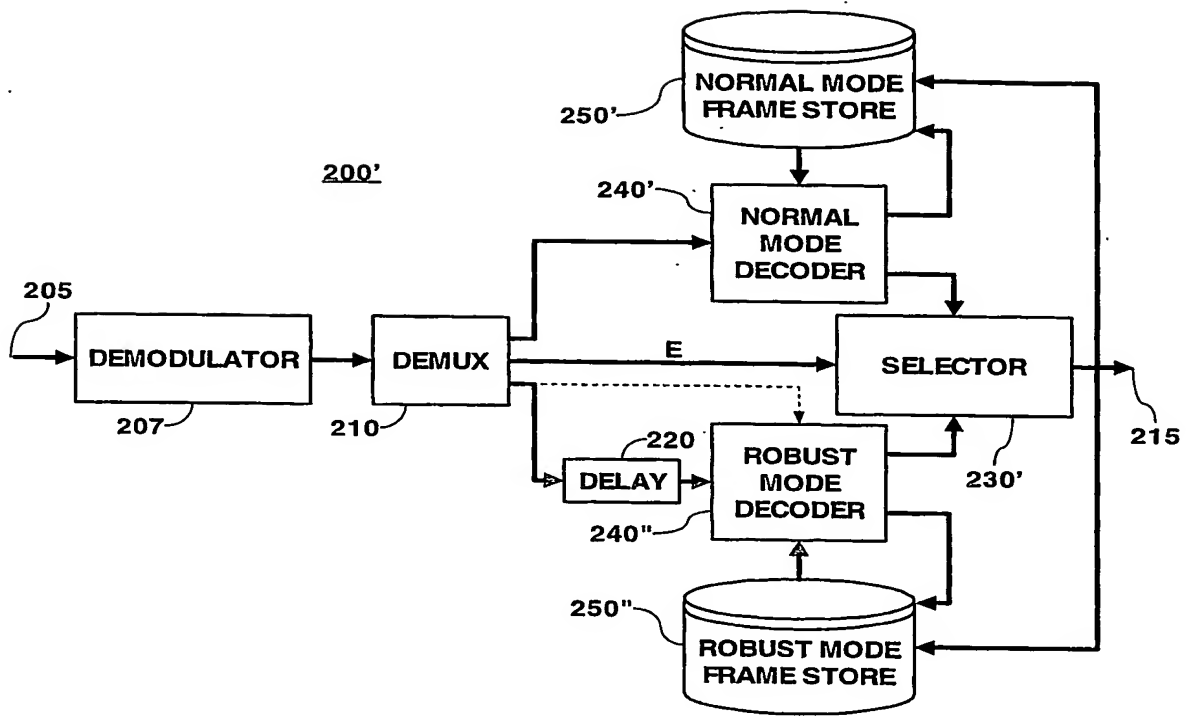


Fig. 5 Smoothing selector

4/10

**Fig. 6 Picture layer receiver**

5/10

MPEG:

CODED	I	B	B	P	B	B	P	B	B	P	B	B	P	B	B	420
FRAMES	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	520

SLICES																
JVT:																
CODED	IDR							...								440
FRAMES	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	540

OUTPUT:

FRAMES	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	460
SOURCE	M	M	M	M	M	M	J	M	M	M	XX	M	M	J	M	560

Fig. 7 Picture layer streams

6/10

Number_of Robust_simulcast_channels	802	up to 256 channels supported	8 bit unit
For (i=0;i<number_of_robust_simulcast_channels;i++){			
Robust_Mode_PID	804	Identifies this channel in the TS	16 bit unit
Simulcast_data_type	806	0 = video 1 = audio 2 = data	2 bit unit
If(Simulcast_data_type=_0){	812		
Robust_Mode_video_compression_format		0 = ATSC MPEG2 MP@HL 1 = JVT MP@level all others reserved_for_future_use	6 bit unit
Robust_Mode_video_frame_rate		Frame rate in frames per second	7 bit unit
Robust_Mode_video_frame_interlaced		If 0 then progressive, else interlaced	1 bit unit
Robust_Mode_video_frame_horz		Horizontal frame resolution	16 bit unit
Robust_Mode_video_frame_vert		Vertical frame resolution	16 bit unit
Robust_Mode_video_frame_bitrate		Video elementary stream bit rate in bps	32 bit unit
Eise	814		
Robust_Mode_audio_compression_format		0 ATSC AC-3 1 MP3pro all others reserved	6 bit unit
Robust_Mode_audio_bitrate		Audio elementary bit rate in bps	24 bit unit
Robust_Mode_audio_sample_rate		Audio sample rate in Ksamples per sec	8 bit unit
Robust_Mode_audio_mode		0 5.1 channels 1 2 channel others	8 bit unit
}			
Normal_mode_simulcast_PID	808	PID of the normal channel which this robust mode channel duplicates.	16 bit unit
Robust_to_Normal_delay_offset	810	A 32 bit value in 90 KHZ clock cycles indicating the delay from robust channel to the normal channel	32 bit unit
Robust_Mode_High_Quality	816	IF 0 THEN the receiver should use the normal channel if available ELSE the broadcaster recommends use of the robust channel instead of the normal channel	1 bit unit
} // end for loop robust channels			

Fig. 8 PSIP/VCT Table

7/10

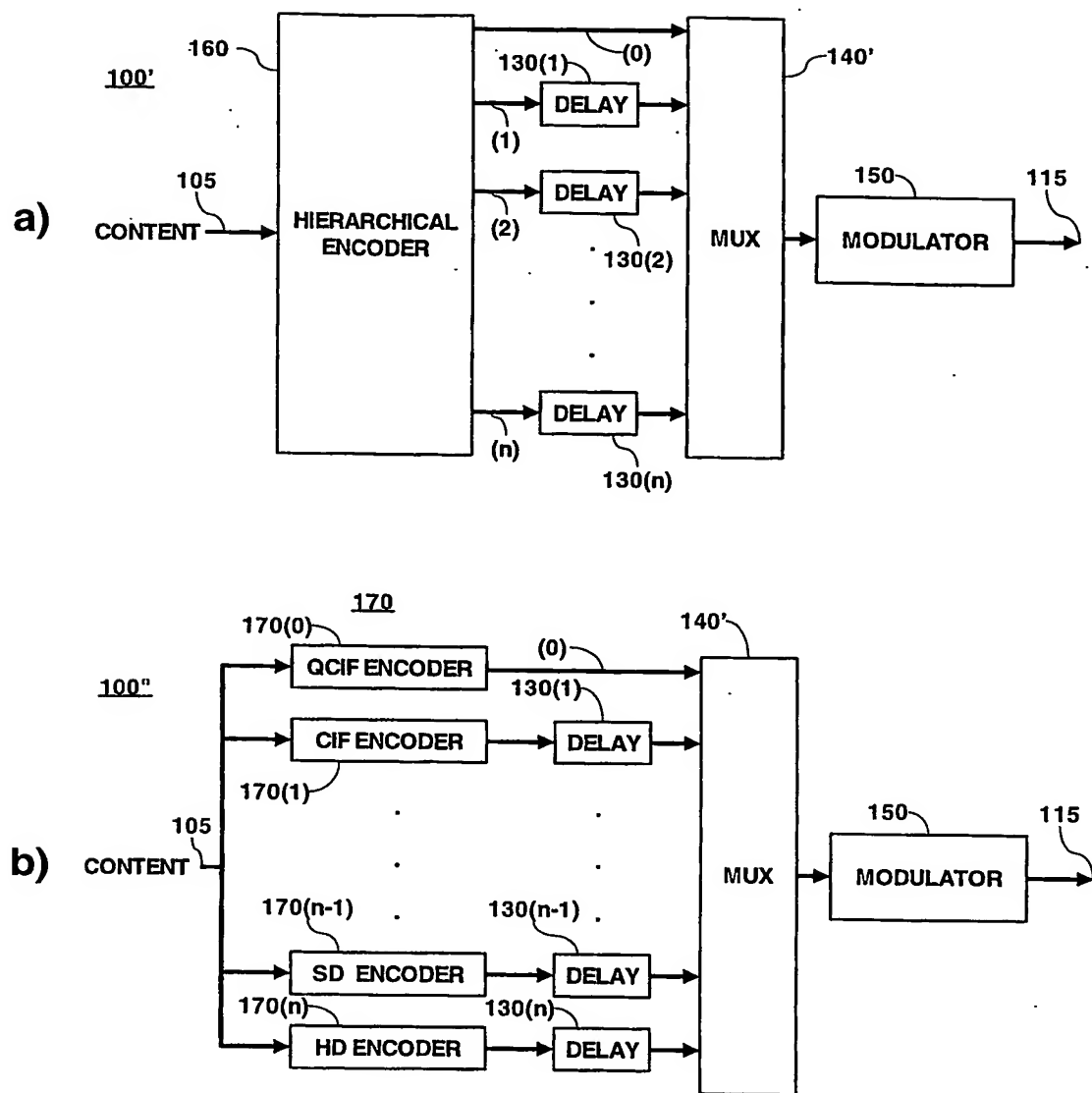
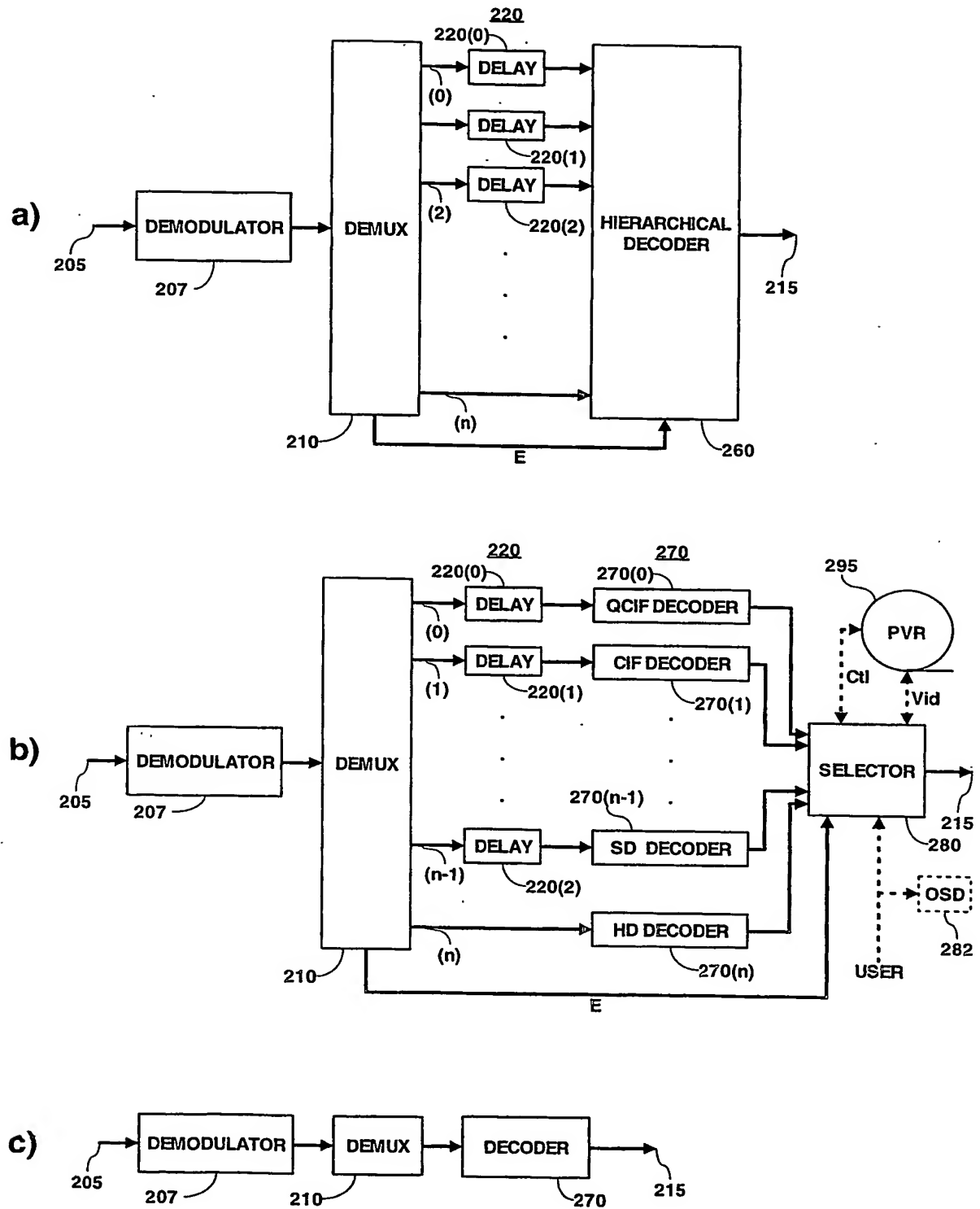
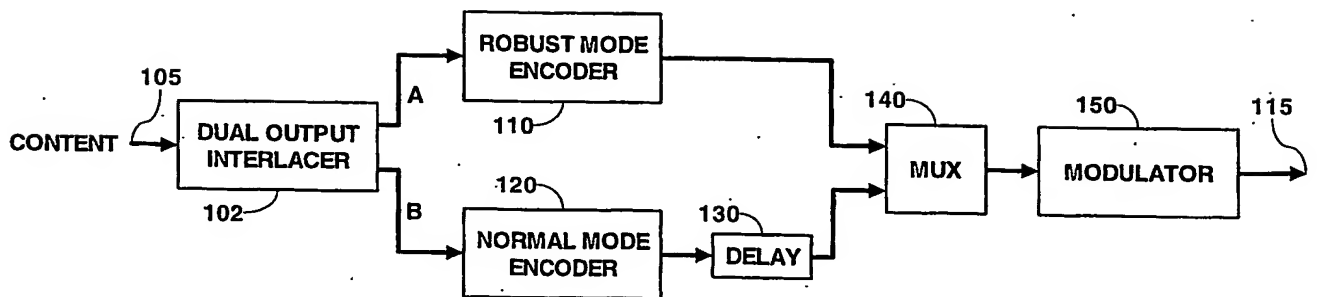
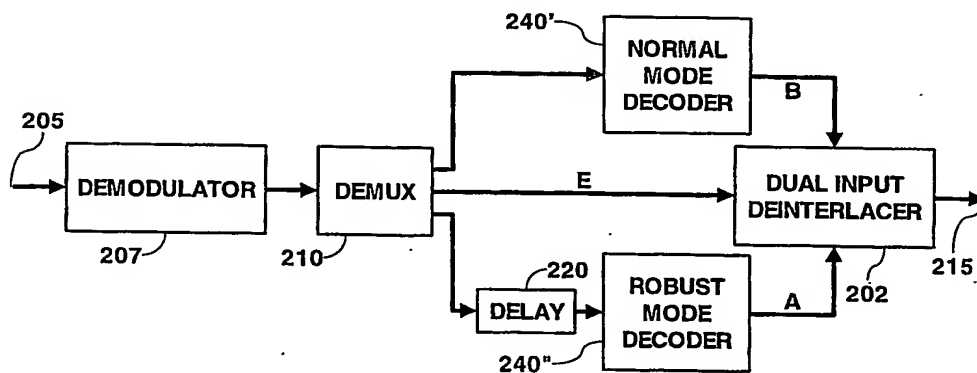


Fig. 9 Multiresolution transmitter

8/10

**Fig. 10 Multiresolution receiver**

9/10

**Fig. 11 Dual interlace transmitter****Fig. 12 Dual interlace receiver**

10/10

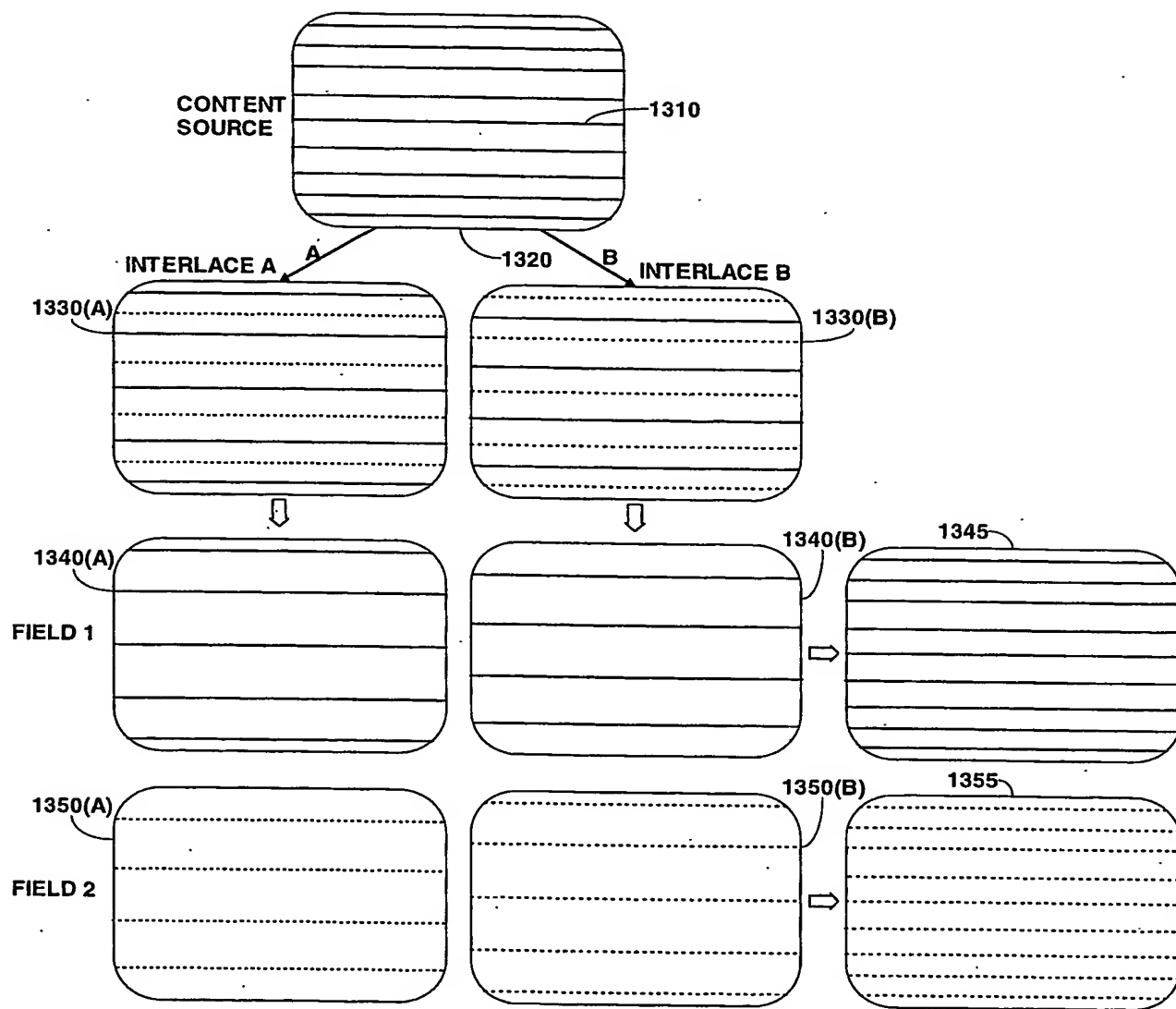


Fig. 13 Dual interlace scan images